

CENTRAL SEVIER VALLEY

By B.A. Slauch

The central Sevier Valley is in south-central Utah, surrounded by the Sevier, Wasatch, and Gunnison Plateaus to the east and the Tushar Mountains, Valley Mountains, and Pahvant Range to the west. Altitude ranges from 5,100 feet on the valley floor at the north end of the valley near Gunnison to about 12,000 feet in the Tushar Mountains.

Total estimated withdrawal of water from wells in central Sevier Valley in 1998 was about 20,000 acre-feet, which is the same amount that was reported for 1997 and 1,000 acre-feet more than the average annual withdrawal for 1988-97 (tables 2 and 3).

The location of wells in the central Sevier Valley in which the water level was measured during March 1999 is shown in figure 20. The relation of the water level in selected wells to annual discharge of the Sevier River at Hatch, to cumulative departure from average annual precipitation at Richfield, to annual withdrawal from wells, and to concentration of dissolved solids in

water from well (C-23-2)15dcb-4 is shown in figure 21. Long-term hydrographs for selected wells in the central Sevier Valley show that March water levels generally rose from about 1978 to 1985, declined from 1985 to about 1993, and have been stable or rising slightly since 1993. Water-level rises during 1978-85 probably resulted from greater-than-average precipitation during the same period and recharge from the Sevier River.

Discharge of the Sevier River at Hatch in 1998 was about 128,200 acre-feet. This is about 60,900 acre-feet more than the 67,300 acre-feet for 1997 and about 48,200 acre-feet more than the 1940-98 average annual discharge.

Precipitation at Richfield was 10.13 inches in 1998, which is 1.97 inches more than the 1950-98 average annual precipitation and 0.87 inch more than in 1997. Concentration of dissolved solids in water from well (C-23-2)15dcb-4 decreased from about 600 milligrams per liter to about 400 milligrams per liter during 1987-95, which was the concentration during 1955-59. The calculated concentration of dissolved solids for 1998 was 410 milligrams per liter.

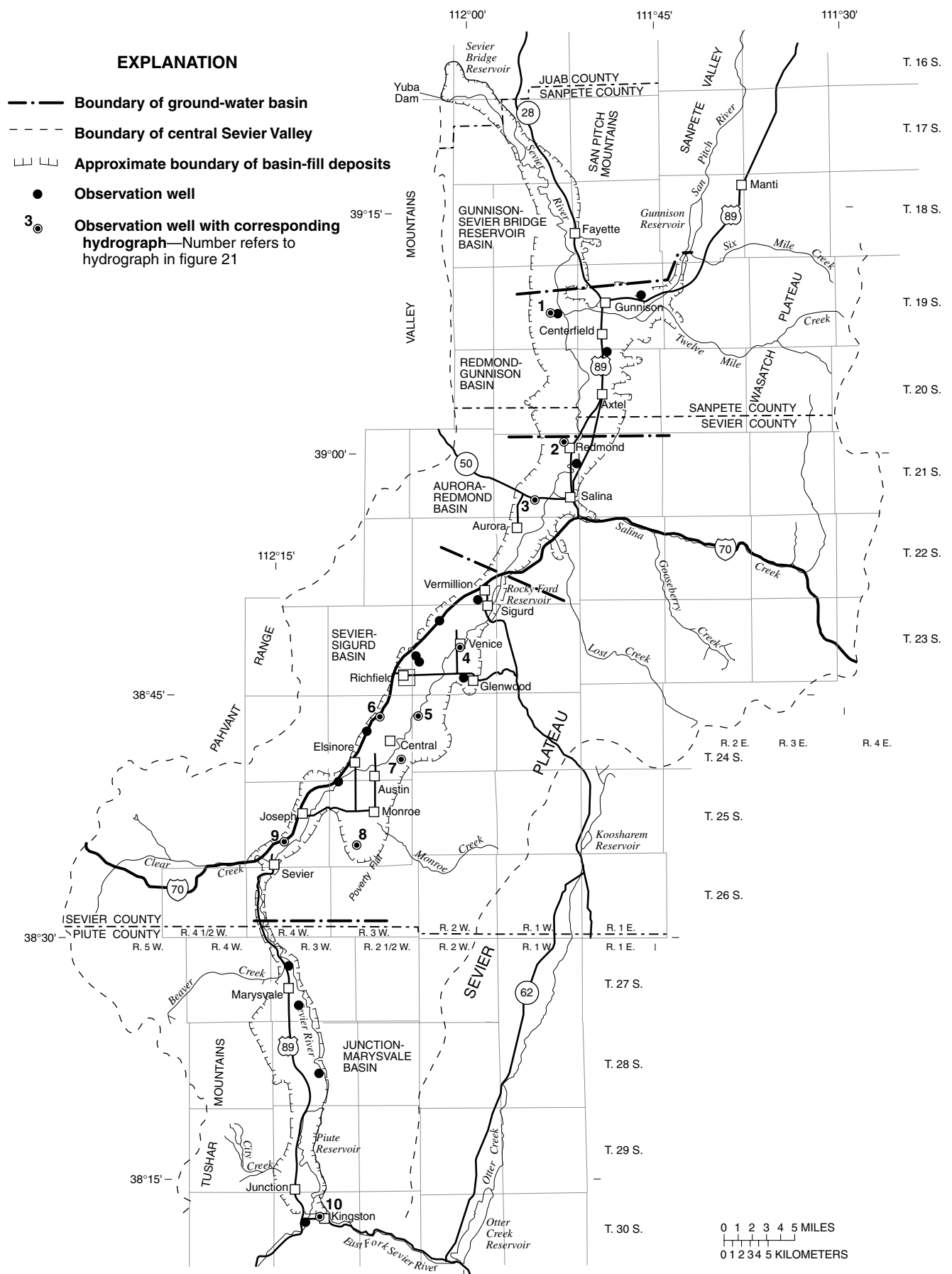


Figure 20. Location of wells in central Sevier Valley in which the water level was measured during March 1999.

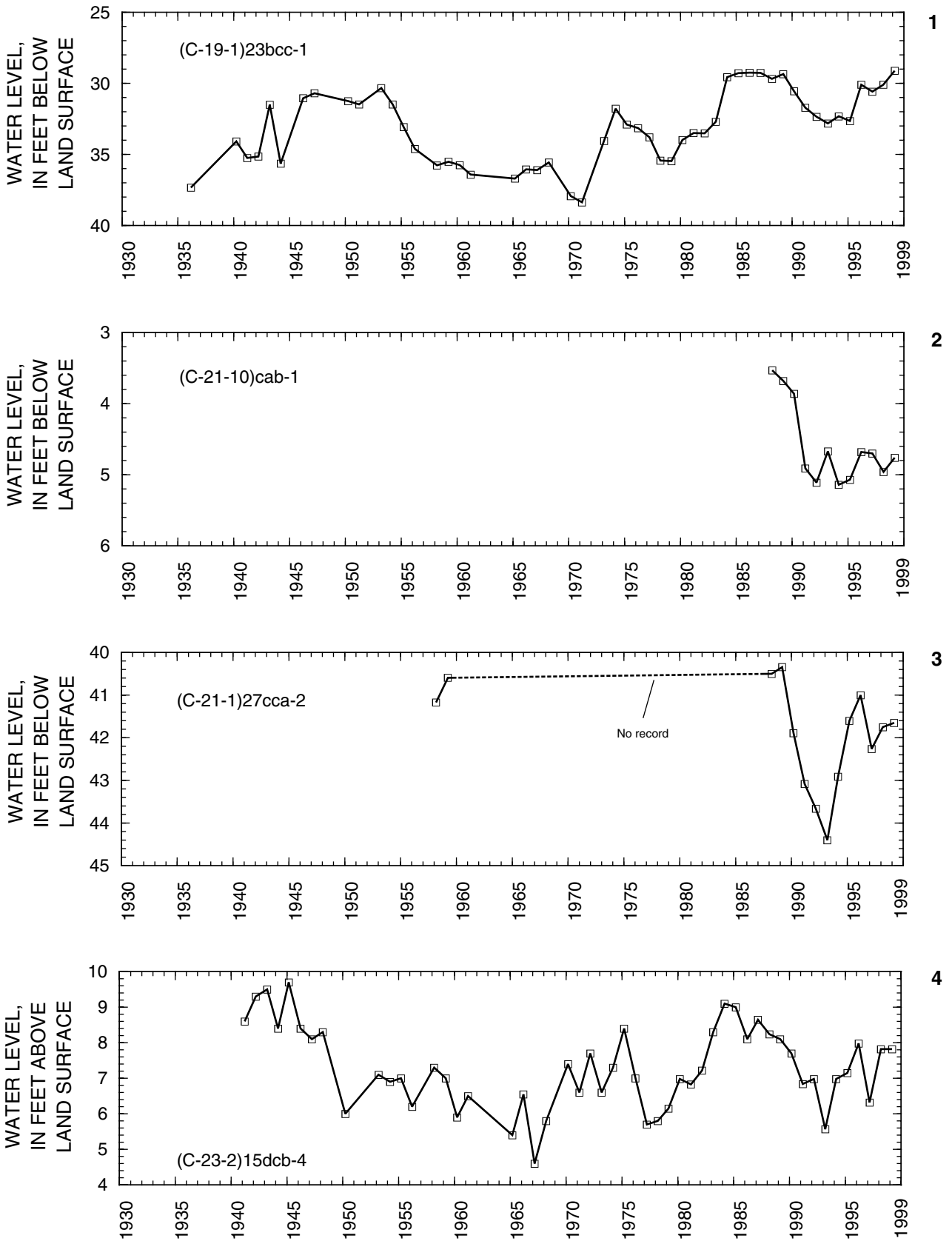


Figure 21. Relation of water level in selected wells in central Sevier Valley to annual discharge of the Sevier River at Hatch, to cumulative departure from average annual precipitation at Richfield, to annual withdrawal from wells, and to concentration of dissolved solids in water from well (C-23-2)15dcb-4.

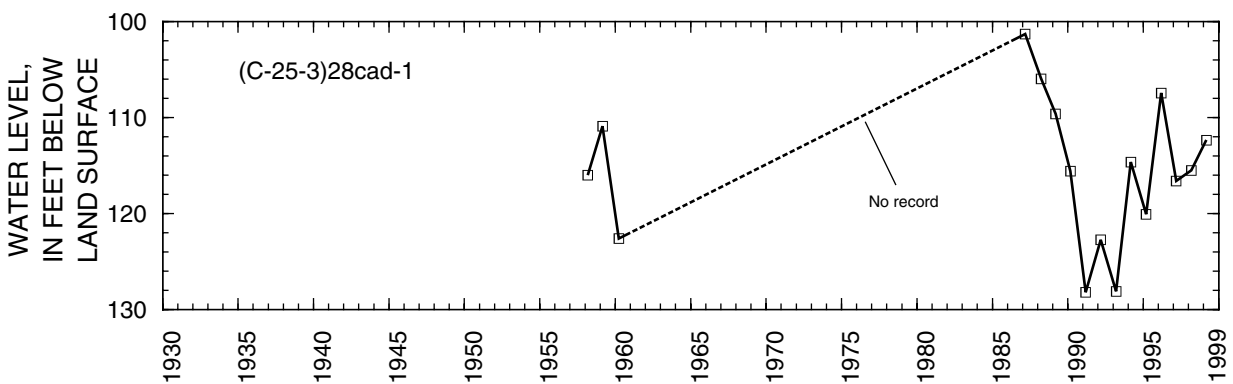
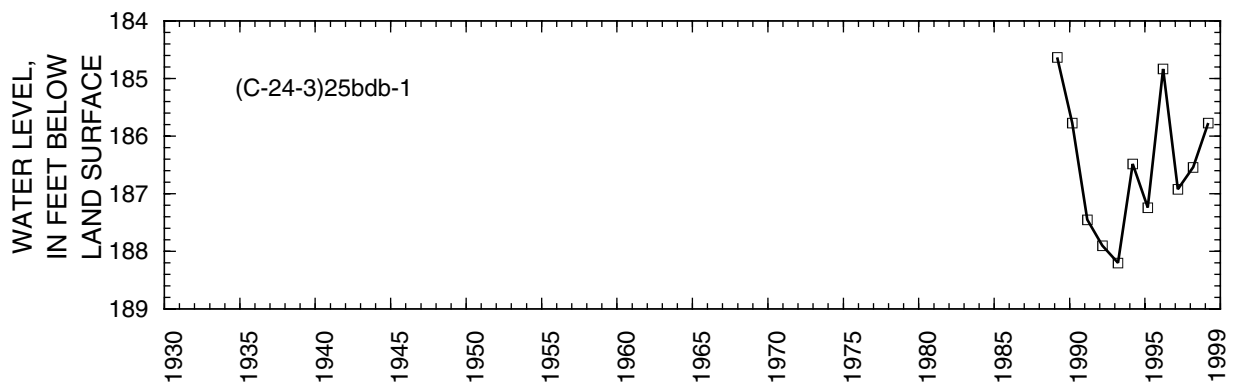
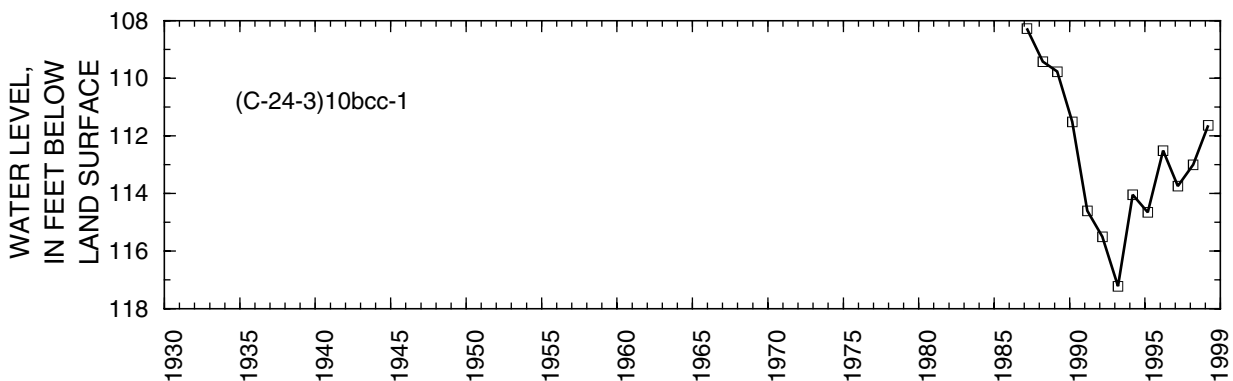
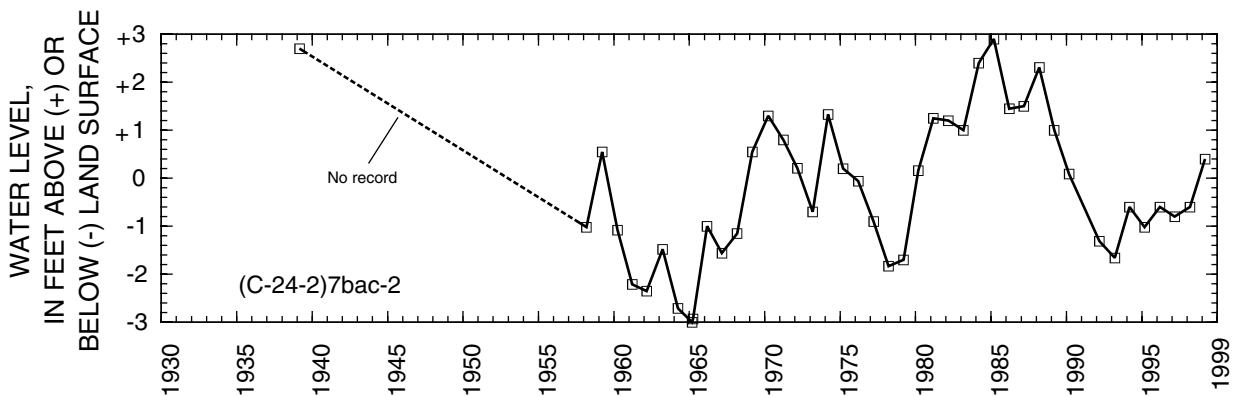


Figure 21. Relation of water level in selected wells in central Sevier Valley to annual discharge of the Sevier River at Hatch, to cumulative departure from average annual precipitation at Richfield, to annual withdrawal from wells, and to concentration of dissolved solids in water from well (C-23-2)15dcb-4—Continued.

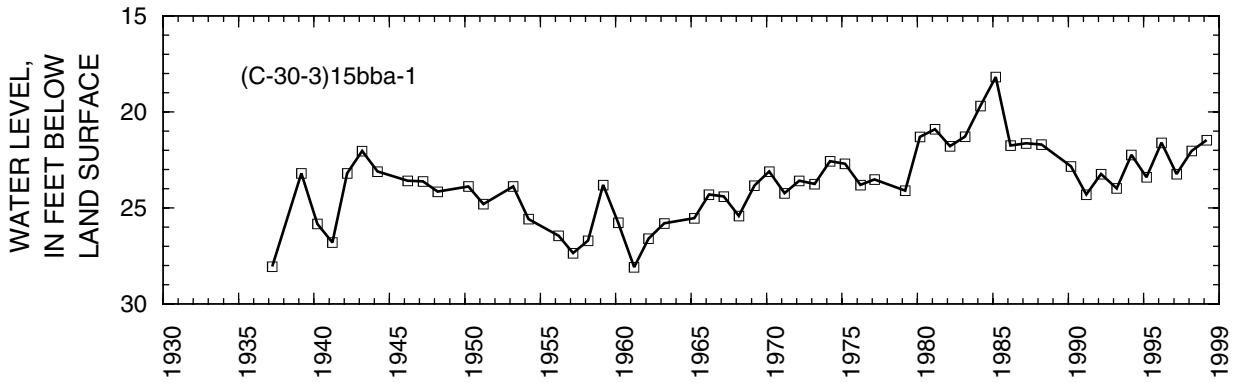
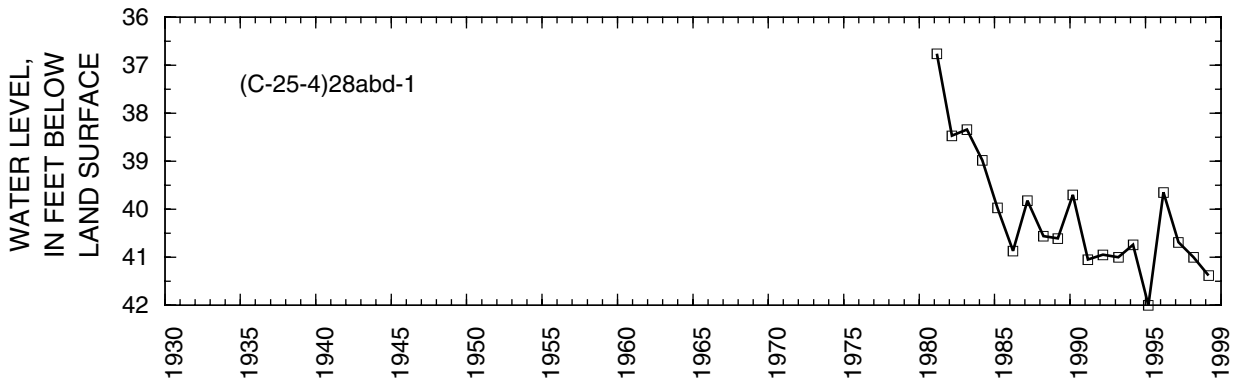


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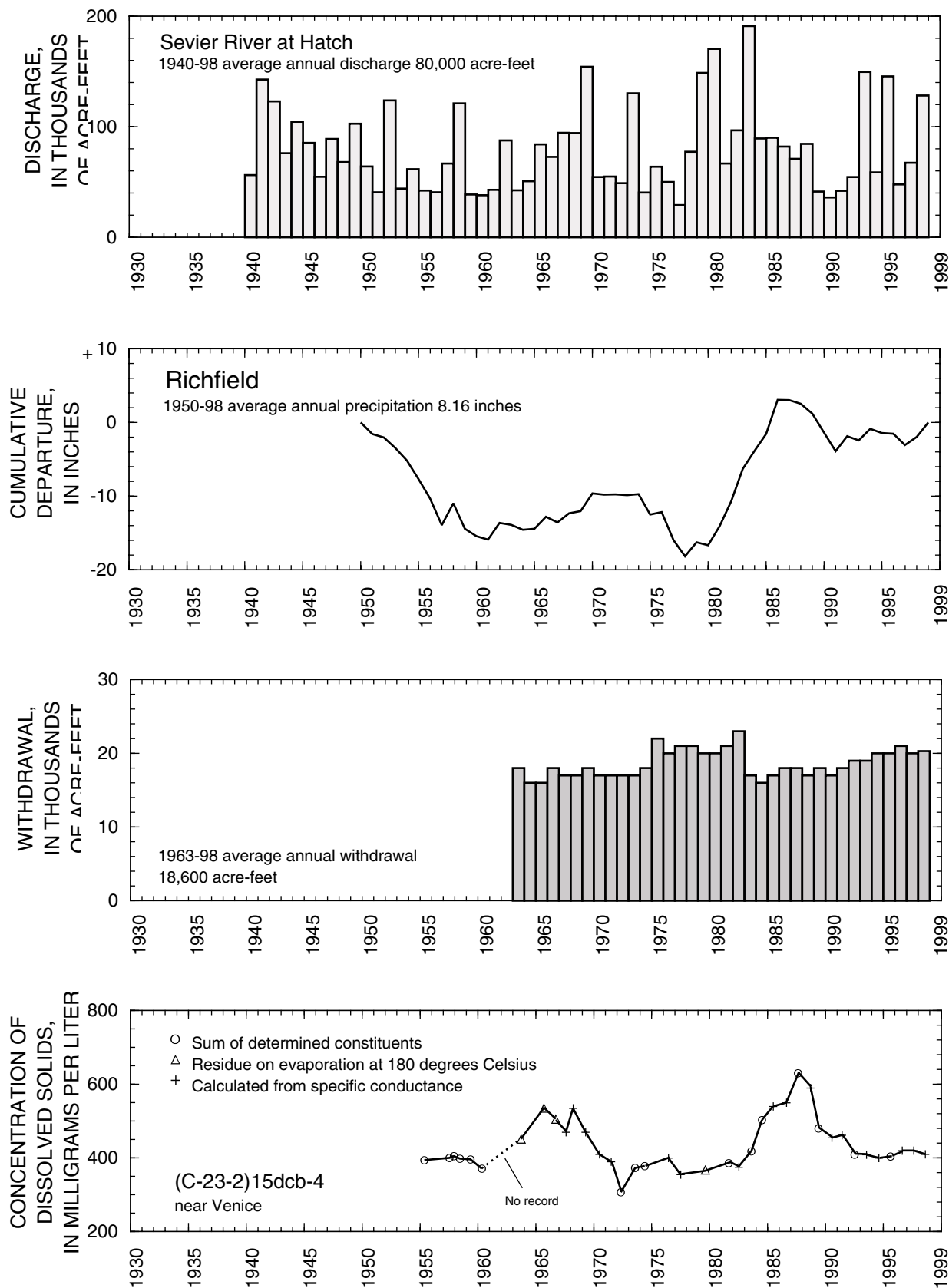


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